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## **TITLE OF THE INVENTION**

### **SYSTEM AND METHOD FOR CONFIRMING SPECIFICATION OF INTENDED ELECTRONIC MAIL MESSAGE RECIPIENTS**

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## **BACKGROUND OF THE INVENTION**

### **Field of the Invention**

The present invention relates to

### **Description of the Related Art**

10        Electronic messaging or "email" has become one of the  
most frequently used communications tools of the modern world.  
In fact, email has become a preferred means of communication in  
both private and commercial settings. Email is used to  
communicate every form of information including, but not limited  
15    to, confidential and, often, personal information. Unfortunately,  
email often is communicated to unintended recipient parties  
(individuals and groups) simply because a sender does not  
confirm correctness of a specified recipient's address information  
(e.g., an email address – such as JOE@domainname.com). The  
20    risks associated with such erroneous message transmission are  
exacerbated by the fact that often a single click of a messaging  
client toolbar button (e.g., a SEND button) can result in sending  
email to unintended, and, possibly, unknown parties (as in the  
case of incorrectly responding to unsolicited email). Accordingly,

it can be said that such unintended email transmissions result from a general lack of safeguards provided by messaging client applications. And, as communications technologies have and continue to develop beyond email into instant messaging, and  
5 other non-voice-to-voice modes, for example, the problems associated with erroneous transmission are compounded.

Thus, there exists a need to provide new and improved systems and methods that will help senders of email and other similar messages (e.g., instant messages) to send their messages  
10 to actually intended recipients and to avoid erroneous transmission of messages.

## **SUMMARY OF THE INVENTION**

The present invention solves the aforementioned problems  
15 associated with prior systems and methods used for transmission of email and other similar or like messages. In particular, the present invention permits users of messaging systems such as email systems, instant messaging systems, wireless phone-to-phone systems, etc., to confirm the specification of addressing  
20 information (e.g., email addresses) prior to transmission of their messages. Accordingly, the present invention improves existing email and other similar and like messaging systems by providing a level of personal security and comfort in that senders of messages

can assure themselves that messages will be sent to actually intended recipients. As such, the present invention promotes message confidentiality and, ultimately, security.

In achieving the aforementioned benefits, the present invention provides systems and methods that include and involve generation means for permitting a sender to generate an email message to be sent to a specified recipient via a messaging system, confirmation means for confirming that the email message is to be sent to the specified recipient by presenting to the sender a confirmation notice requesting the sender to confirm that the specified recipient is an intended recipient of the email message, and sending means for causing the email message to be sent to the specified recipient via the messaging system after the sender operates the confirmation means and confirms that the specified recipient is an intended recipient.

The present invention and the aforementioned benefits and features are described in detail below with reference to the drawing figures which are attached hereto.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

The present invention is described in detail below with reference to the following drawing figures, of which:

FIG.1 is a diagram of a system in which a sender can generate a message such as an electronic mail (email) message and confirm addressing information prior to actual transmission in accordance with a preferred embodiment of the present invention;

5        FIG. 2 is a block diagram of an automatic data processing system that is configured in accordance with the present invention to facilitate confirmation of email recipients in accordance with a preferred embodiment of the present invention;

10        FIG. 3 is a block diagram that illustrates the modules and facilities such as objects that make up a software system that may be executed within the data processing system depicted in FIG. 2 to facilitate confirmation of email recipients and addressing information in accordance a preferred embodiment of the present invention;

15        FIG. 4 is a exemplary screen shot that illustrates a confirmation session that results from execution of a software system like or similar to the one depicted in FIG. 3;

20        FIG. 5A is a flowchart that illustrates method steps involved in facilitating confirmation of email recipients and corresponding addressing information in accordance with a preferred embodiment of the present invention;

FIG. 5B is a continuation flowchart of the flowchart started in FIG. 5A; and

FIG. 5C is the conclusion of the flowchart illustrated in FIGS. 5A and 5B.

## DETAILED DESCRIPTION OF THE

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## PREFERRED EMBODIMENTS

The present invention is now described in detail with regard to the drawing figures that were briefly described above.

Referring now to FIG. 1, depicted there is a diagram of a system in which a sender can generate a message such as an electronic mail (email) message, an instant network message, a wireless phone-type instant message, etc. and confirm recipient addressing information prior to actual transmission in accordance with a preferred embodiment of the present invention. In particular, within system 100, a sender 100 may generate an email message E in a conventional way such as by way of a compose function of an email client application running within a personal computer system -- e.g., a MIME Compliant/Formatted email message. Such an email message E may sent via the sender's ISP and email provider 102 and via a network 104 (such as the Internet), and through a recipient's ISP and email provider 106 for ultimate receipt by a recipient 108. In accordance with the present invention, sender 100 may confirm the specification of recipient 108 prior to actual transmission of email message E to

recipient 108. As will be discussed below with regard to FIGS. 2 through 5C, such a novel confirmation may take the form of presentation of dialog box type confirmation notices in conjunction with graphic displays, audio voicing of email addresses, or via  
5 other multimedia manifestations which are presented to sender 100 within his email client application. Such confirmation notices may take the form of audio streams (voicing of email addresses), video presentations, or combinations thereof to present confirmation notices that can be used by sender 100 to confirm  
10 that a particular sender is an actual intended recipient of email message E.

The present invention contemplates the use of conventional email systems and technologies to transport email messages across a network such as via the Internet, within an  
15 Intranet, or within any other automated data processing environment utilizing networking and conventional messaging technologies. Moreover, the present invention certainly contemplates the application of the confirmation technologies provided herein in the context of other messaging systems such  
20 as within instant messaging systems, messaging technologies utilized in wireless applications such as instant phone-to-phone communications, etc. Accordingly, references to email are

intended to be broad based and certainly contemplate alternative messaging systems and services (e.g., instant messaging, etc.).

In the case of email communications, for example, the field or fields within a messaging scheme which hold the names and addresses of intended recipients of the email (for example, a primary email recipient, cc: addresses, blind cc: addresses, etc.) are specified by the sender of the email. On sending an email message, these fields are evaluated so that confirmation notices are provided in accordance with the present invention. Such confirmation notices may be voiced in conjunction with dialog boxes presented on a screen, for example, etc. Such voice confirmation notices may take the form of "Are you sure you want to send this email message to 'alfred@hotmail.com', having email address 'a-l-f-r-e-d@h-o-t-m-a-i-l.com'?... If yes, click OK and, if not, click Cancel or NO." Accordingly, the present invention can be configured to look for a response by the sender in order to actually transmit a message such as an email message to an intended recipient. Accordingly, the present invention prevents email messages from being sent to unintended individuals, and aids senders to not disclose information to unintended parties. Those skilled in the art will immediately appreciate that the nature and language of a confirmation notice/dialog provided by



the present invention may take on any definition that suits particular design and implementation requirements.

Referring now to FIG. 2, depicted therein is a block diagram of an automatic data processing system that is configured in accordance with the present invention to facilitate the confirmation of email recipients in accordance with a preferred embodiment of the present invention. Automated data processing system 200 is one that may be used by a sender in accordance with the present invention. Automated data processing system includes a processor arrangement 202 which is coupled to a data storage facility 204 and to input and output (I/O) facilities 206 such as speakers within a sound card, a video monitor, a printer, etc. Those skilled in the art will immediately understand the arrangement shown within system 200 as a computing platform which may be outfitted in accordance with the present invention to provide confirmation notices to confirm email recipients. Such an automated data processing system may be implemented using a personal computer similar or like an IBM compatible computer running the Microsoft® Windows™ 98 operating system. Accordingly, I/O facilities 206 may include any type of computer peripheral device for providing, for example, audio streams such as automatically played email address voice streams, video displays, and combinations thereof (including multimedia

presentations), to a sender in the context of a messaging client application (e.g., email client, a wireless phone-to-phone client application, an instant messaging client, etc.).

Referring now to FIG. 3, depicted therein is a block  
5 diagram that illustrates the modules and facilities such as objects that make up a software system provided by the present invention and that maybe executed within the data processing system depicted in FIG. 2 to facilitate confirmation of email recipient addressing information in accordance with a preferred  
10 embodiment of the present invention. In particular, software system 300 includes, among other software objects and routines, several modules for providing an email generation facility/module 301, an email recipient confirmation facility/module 302, and an email sending/transmission facility/module 303. The interaction of  
15 facilities 301 through 303 is further discussed below with regard to FIGS. 4 and 5A through 5C.

Referring now to FIG. 4, depicted therein an exemplary screen shot that illustrates the confirmation session that results from execution of a software system like or similar to one depicted  
20 in FIG. 3. In particular, an email client 300 is shown as running within data processing system 200. Email client 300 may be similar in structure, appearance, and operation to Microsoft Outlook® which is manufactured by Microsoft Corporation.

Outlook® is a trademark and/or registered trademark of Microsoft Corporation.

Within email client 300, a sender has instantiated generation of a email message 400. Email message 400 includes  
5 an addressing information section 402 in which a sender will specify email/msg addresses of specified parties who may be considered intended recipients prior to confirmation, and body text/data forming part of email message 400 as body text section 404. Email message 400 is a conventional email message and  
10 may be one that includes attachments and the like in a conventional way. Such an email message will be readily understood by those skilled in the art.

Once email message 400 has been generated to the satisfaction of a sender, he/she may elect to transmit the message  
15 to his/her designated recipient(s). Such operation normally occurs within an email client like or similar to email client 300 by operation of a send button 406. Upon clicking send button 406, a confirmation sequence including the presentation of a confirmation dialog/notice 408 will presented to the sender.  
20 Confirmation dialog/notice 408 may also include the presentation of multimedia presentations including audio and video content. The essence of confirmation dialog/notice 408 is to allow the sender to confirm delivery and transmission of email message 400

to each one of the specified recipients as designated within  
addressing information section 402 of email message 400. The  
presentation of a dialog box and one that allows a user to select a  
YES/NO/CANCEL operation will be immediately understood by  
5 those skilled in the art.

Confirmation dialog/notice 408 will present an inquiry in the  
form "Do you really want to send this email message to  
afred@hotmail.com?" Such an inquiry may take the form of a  
multimedia presentation including audio and video content as  
10 illustrated at audio content (speaker) 410, and video content 412  
such as in the form of a picture or thumbnail image (e.g., a pre-  
stored .jpg, .gif, file, etc.) of or otherwise corresponding to a  
specified recipient. Accordingly, the present invention permits a  
audible message such as automated voicing of a person's email  
15 address or other stream (e.g., "Your Best Friend Alfred")  
corresponding to a specified recipient to be played via speakers  
and other input/output facilities of a sender's data processing  
system, as well as the presentation of screen based image  
corresponding to a specified recipient. In this way, a sender will  
20 able to confirm and satisfy himself that he has properly specified  
the email address for the person/group to whom he intends his  
message to be sent. It is important to note that a key feature of  
the present invention is the ability to allow a sender to create and

specify a mapping form identifying data relating to a particular address (e.g., an email address, a phone number, an instant messaging address, etc.) to a particular person/group – e.g., a sender may configure his email client provided in accordance with  
5 the present invention to show a family picture corresponding to his best friend, or to play a wedding song to illustrate correspondence to his wife's email address.

The structures and operations discussed above are designed and intended to operate together to provide the  
10 functionality described in detail herein. To illustrate such resultant functionality, reference is now made to the flowchart illustrated in FIGS. 5A-5C.

With specific reference to FIG. 5A, depicted therein is a flowchart that illustrates method steps involved in facilitating  
15 confirmation of email recipients and corresponding addressing information in accordance with a preferred embodiment of the present invention. In particular, processing and operations start a step S5-1 and immediately proceed to step S5-2. At step S5-2, a sender will instantiate an email client or similar messaging client  
20 such as the one depicted in FIG. 3 to derive a screen display image similar or like the one shown in FIG. 4. Such operation may occur as a result of running an email client within a

Windows™ based operating system running on a automated data processing system such system 200 as depicted in FIG. 2.

Next, at step S5-3, the sender will generate an email message addressed to one or more recipients (e.g., to  
5 alfred@hotmail.com).

Next, at step S5-4, the sender will cause the email message to be sent by the email client such as via a clicking operation of SEND button 406 (FIG. 4).

Next, at step S5-5, a confirmation dialog/notice will be  
10 presented to the sender. Such a dialog/notice may include multimedia content, including audio content, video content, as well as combinations thereof.

Processing and operations continue at step S5-6 at the top of FIG. 5B.

15 At step S5-6, a determination will be made as to whether the sender wants to send the email message to a particular specified recipient. Such an inquiry may include the presentation of audio content, video content or via other multimedia content manifestation.

20 If the determination at step S5-6 is affirmative, processing proceeds to step S5-7. At step S5-7, the email client will send/transmit the email message to the specified recipient via a network connection such as via the Internet, via some form of

communications network (e.g., a wireless communications network), etc.

Thereafter, processing and operations end at step S5-8. However, if the sender specified more than one recipient within the address information of a particular email message the sequence shown in FIG. 5B can be repeated based on the number of recipients specified by the sender, for example.

If the determination at step S5-6 is negative, processing and operations continue at step S5-9 at the top of FIG. 5C.

In particular, at step S5-9, the email client will return the sender to the email message editing/composition session or present some other type of dialog to the sender to indicate that the sender has confirmed that the specified recipient is otherwise not intended.

Processing and operations end at step S5-10.

Thus, having fully described the present invention by way of example with reference to the attached drawing figures, it will be readily appreciated that many changes and modifications may be made to the invention and to any of the exemplary embodiments shown and/or described herein without departing from the spirit or scope of the invention which is defined in the appended claims.